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ABSTRACT

The Instrument for a Comprehensive and Relevant Education (ICARE) evaluation system seeks to identify teacher effectiveness in health occupations education. This report details the extent to which the use of the ICARE system has been effective in changing the educational practices of health educators who participated in ICARE workshops. The two major categories of change investigated were the degree to which ICARE concepts and practices were adopted and the degree to which the ICARE framework was modified to meet individual or program needs. Research methodology and conclusions are presented. (CJ)

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Teacher Evaluation in Health Professions Education

A Study of the Impact of ICARE

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SP 016 581

TEACHER EVALUATION IN HEALTH PROFESSIONS EDUCATION

A Study of the Impact of ICARE

Colorado Association for Continuing Medical
Laboratory Education, Inc. (CACMLE)
1601 Milwaukee Street, Denver, Colorado 80206

TEACHER EVALUATION IN HEALTH PROFESSIONS EDUCATION

A Study of the Impact of ICARE

1978

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INTRODUCTION

In a time of growing educational accountability, the consumers of health professions education, namely the students and ultimately the public, are exerting mounting pressure on health education institutions to provide efficient and effective teaching/learning experiences. However, educational training for health care practitioners who are to become teachers is still a rarity.

As in the rest of higher education, content expertise and/or clinical experience is equated with the ability to teach that content. This misconception impacts upon the performance of individual instructors who are often at a loss to identify ways in which their own instructional practices can be improved. Many areas of education, such as individualized instruction, alternative instructional strategies, and student evaluation procedures, are foreign to health care practitioners who suddenly find themselves cast in the role of a teacher.

As a result of the above conditions, there is a need for teacher training. To meet this need, a variety of faculty development workshops have been offered to health educators throughout the country. Workshops on writing learning objectives, test construction and instructional techniques have been among the most commonly offered. But attendance at such workshops is often contingent upon a previously identified need for improvement by individual faculty.

How are such needs identified? One important mechanism in helping faculty identify areas of weak performance is teacher evaluation. However, there is no commonly agreed upon technique for the evaluation of teaching activities within health professions education. In fact, a search of the literature has revealed that there is little agreement within or across professions as to what constitutes good teacher evaluation, what assessment techniques should be used, or what standards of teacher performance (if any) should be referenced.

Because of the lack of standards for evaluation and because of the lack of evaluation practices in many institutions, a standardized system of teacher evaluation for health professions educators was developed under DHEW contract (NIH #72-4355) by Smith and Deever. This system, ICARE (Instrument for a Comprehensive and Relevant Education), was disseminated to health care faculty through national workshops. Several dissemination projects were funded between 1972 and 1977. The primary purpose of these projects was to provide training in the ICARE technique of objective evaluation of teaching activities. A secondary, but equally important purpose, was to furnish the health educators who attended with a conceptual definition of their role and function and to provide a guide for self assessment and improvement. A complete description of the ICARE program can be found in Appendix A.

PROJECT DESCRIPTION

This project sought to establish, through questionnaire survey, the extent to which the ICARE system has been effective in changing the educational practices of the health educators who participated in ICARE workshops. The survey sought to identify two major categories of change: first, the degree to which the ICARE concepts and practices have been adopted and utilized, and second, the degree to which the ICARE conceptual framework has been adapted to meet specific individual or programmatic needs.

The principal focus of the ICARE system is to provide a standardized mechanism for teacher evaluation. Since the workshops were designed to train participants to use the system in their own institutions or programs, the degree of utilization of ICARE (by individuals and/or programs) was assessed in the questionnaire. This utilization was defined either as the adoption of the ICARE evaluation method in toto or the use of one or more of the ICARE tools, such as the definition of teacher competence or the evaluation instrument.

Because evaluation is used and needed in many areas of health education, an implicit objective of an ICARE workshop is to provide a generalizable model for evaluation that can be applied to areas such as student performance, clinical evaluation and applicant selection, as well as the assessment of teaching activities. As an additional index of utilization, the questionnaire sought to establish the extent and type of currently used adaptations of the ICARE process.

The conceptual framework (model) of the ICARE system may be described in five basic steps:

Step 1: Definition of desired performance. This involves the identification of competencies which become the performance standard.

Step 2: Condensation of the performance statements into a series of behaviorally anchored rating scales which comprise the measurement instrument.

Step 3: Objective collection of performance data.

Step 4: Application of evaluation data to the performance statements as specified in the measurement instrument.

Step 5: Provision for performance improvement via counseling.

PURPOSE

In an effort to assess the impact of the ICARE faculty development workshops upon the evaluation and teaching practices of health educators, this study addressed the following questions:

1. What types of individuals tend to adopt ICARE?
2. Is there a difference in the degree of use of the ICARE concepts and practices among health educators with various responsibilities?
3. In what ways has ICARE been adapted to meet other evaluation needs?
4. What are the major facilitators to adoption of ICARE?
5. What are the major barriers to adoption of ICARE?
6. In what ways has ICARE impacted upon the educational/evaluation practices of workshop participants?

SIGNIFICANCE OF THE PROJECT

A search of the literature has revealed no information to date concerning the impact of teacher evaluation upon teacher performance. The purpose of this study is to describe the extent to which individual teachers changed their behavior or instructional practices as a result of their attendance at an ICARE workshop.

The identification of significant facilitators and barriers which affected individual change should have important implications for future projects. Through the identification of barriers to ICARE implementation, participants may develop a more realistic expectation of the probability for acceptance of ICARE at their institution. The identification of facilitators may assist administrators to recognize and to prepare for organizational readiness to accept the system.

METHODOLOGY

This section is in three parts: 1) description of the population/sampling, 2) instrument development and 3) data collection and data analysis.

Population Sampling

The identification of the target population for the study was a major problem. The strategy was: 1) to identify all ICARE workshops conducted, 2) to contact workshop leaders and request the names and addresses of workshop participants and 3) to randomly sample 10% of the identified participants for the survey.

Since the target population for this survey was quite diverse, having attended workshops under several different projects, a letter was sent to all identified ICARE consultants requesting their records and participant lists. Approximately seventy-eight ICARE consultants had been identified via a survey conducted prior to the invitational National ICARE Refinement Conference held in April 1976. The consultant list identified in the earlier project was utilized in the initial phase of this survey.

The consultant letter (see Appendix B) provided a copy of the initial information the consultant had provided for the Refinement Conference, namely, the dates and locations of all workshops conducted by that individual. For the purpose of participant identification, names and mailing addresses were also requested for this project.

A followup letter was sent to non-responding consultants and telephone contacts were then made. One hundred percent of the consultants identified in the continental United States were contacted. The response rate for receipt of their participant data was 90%. For the remaining non-responding consultants, it was possible to verify that these individuals had been inactive with respect to ICARE.

The sample for the target population was then constructed. Each of the 1,945 identified participants was listed and coded on a separate card with name, address and workshop information. From this population, a systematic random sample of 10% was drawn. The systematic sample was inspected for sample bias on the basis of geographic location and ethnicity; none was noted. Approximately 1% of the initial sample could not be located. Therefore, an additional 1% (20 subjects) was added to the sample.

Each member of the sample received an initial cover letter (see Appendix C) with a survey instrument. A self-addressed, stamped return envelope was included. After a period of three weeks, non-respondents received a followup letter (see Appendix D) with a second survey instrument. Two weeks later, the final followup letter was sent (see Appendix E); no further instrument was enclosed.

Following the third mailing, a total of 112 instruments had been returned from the initial sample of 215, for a response rate of 52%. Because of the impending close of the academic school year, as well as the length and complexity of the instrument, a telephone followup was not conducted. However, instruments were coded for early versus late returns. Analyses were performed to ascertain any significant differences between early and late respondents. The characteristics of the late respondent group were then generalized to the non-respondent group.

Instrument Development

The survey instrument used for data collection was developed in a four-step process. (See Appendix F)

Step one was to review all current and relevant literature pertaining to ICARE. This included unpublished material, federal reports and published articles.

Step two was to have a panel of experts in ICARE and health professions education meet for two days to develop a general framework and specific content for the survey instrument.

Members of this panel were:

Beulah Ashbrook, Ed.D.
Ricki Ann Bronstein, M.S.
Dora Johnson, Ed.D.

Step three was to have the draft instrument reviewed by the following research specialists:

Kendrick Spooner, Ph.D.
Elwood Miller, Ed.D.
Phillip Langer, Ph.D.
Norman Brooks, Ed.D.

Step four was to have the instrument reviewed and critiqued by ten individuals who were either ICARE consultants or who had been participants in ICARE workshops.

After all input was received, the final survey instrument was drafted and prepared for mailing.

The final survey questionnaire was a four-part instrument which was sent to all ICARE participants in the survey. The four parts of the instrument were:

Part 1 - Demographic information. This section was designed to identify the type of health professional responding as well as the primary teaching responsibilities of the individual.

Part 2 - Workshop information. This segment was developed to describe the type of ICARE workshop attended, as well as how long ago the individual had participated in the workshop and how many others attended.

Part 3 - Use of ICARE components. This section was designed to identify which components of the ICARE system were being used, what were the barriers and facilitators to use and what activities had been impacted by their use. Part three also was developed to assess the types of adaptation made in the system.

Part 4 - Dissemination and needed services. This section assessed the types of activities practiced by participants in sharing the ICARE concepts as well as what services or materials might be needed to facilitate further implementation of the ICARE system.

Data Collection/Analysis

Of the 112 instruments received, five contained only partial information and were discarded from the sample, leaving 107 respondents. Information from the instruments was coded and key punched. Data analysis was performed by computer using primarily Statistical Programs for the Social Sciences (SPSS) programs for the computation of frequencies, percentages and correlations between variables. These findings are presented in the following section.

ANALYSIS AND INTERPRETATION OF DATA

The summary tables provided in this section are designed to provide descriptive demographic data as well as to identify significant relationships between the important variables. Unless otherwise indicated, a p-value (alpha level) of 0.05 was used to determine the existence of significant relationships.

The following table (TABLE 1) shows the response rate from workshop participants for the survey.

TABLE 1 NUMBER AND PERCENT OF RESPONDENTS

	Number	Percent
Respondents	112	52%
Non-respondents	103	48%

The percent of return was considered adequate since a 35-50% response is average for a mailed questionnaire. In addition, a comparison of early versus late respondents on key variables revealed no significant differences in overall adoption or use. A summary of this analysis is found in Appendix G.

DEMOGRAPHIC DATA

The following four tables provide descriptive information about the sample, and should be used by the reader as an indication of the types of individuals impacted by ICARE workshops.

TABLE 2 NUMBER AND PERCENT OF HEALTH PROFESSIONALS RESPONDING TO THE QUESTIONNAIRE

	Number	Percent
Administrator	2	1.9
Clinical Chemist	1	0.9
Dentist	2	1.9
Dietitian	3	2.8
Educator	43	40.2
Medical technologist	18	16.8
Nurse	25	23.4
Physician	3	2.8
Occupational therapist	2	1.9
Inhilation therapist	5	4.7
Other	3	2.8

The fact that several health occupational groups are not included in the above table indicates either that members of these groups were not a part of the original population, or, more probably that they were not members of the sample, or were non-respondents.

TABLE 3 NUMBER AND PERCENT OF PRIMARY RESPONSIBILITIES OF RESPONDENTS

Responsibility	Number	Percent
No response	4	3.7
Classroom teaching	38	35.5
Clinical teaching	9	8.4
Program administration	29	27.1
Practitioner	6	5.6
*Other	20	18.7

*This category included the following:
Instructional specialist, clinician, laboratory supervisor, administrator, clinical coordinator

TABLE 4 NUMBER AND PERCENT OF EMPLOYING AGENCIES OF RESPONDENTS

Agency	Number	Percent
No response	3	2.8
Vocational/technical school	16	15.0
Community college	22	20.6
4 yr college or university	10	9.3
University medical center	15	14.0
Hospital	27	25.0
*Other	14	13.1

*This category included the following:
Blood center, high school, private school, V.A. hospital, continuing education agency

TABLE 5 JOB RELATED ACTIVITIES OF RESPONDENTS

Job responsibilities	Number	Percent
Course development	78	72.9
Program development	67	62.6
Clinical practice	49	45.8
Teaching (classroom or clinical)	90	84.1
Program evaluation	69	64.5
Teaching staff evaluation	45	84.1
Hiring of teaching staff	26	24.3
Administration	55	51.4

The frequencies and percentages listed in TABLE 5 were calculated on the basis of numbers of respondents choosing each of the job responsibilities listed. Respondents were asked to choose all applicable responsibilities; therefore, the total number of responses exceeds the number of respondents.

In summary, the data indicate that a high percentage of educators, nurses and medical technologists responded in the survey. These persons tended to have primary responsibilities in teaching and program administration and represent a wide range of institutions.

IMPACT DATA

The following tables (TABLE 6 - TABLE 10) provide data which indicate the extent of respondent utilization of ICARE concepts and practices.

TABLE 6 PERCENT OF RESPONDENTS INDICATING VARYING DEGEES OF USE OF ICARE COMPONENTS

As a result of the ICARE workshop, to what extent:	RATING SCALE (Degree of Use)					
	No response	Not at all	Little	Some	Much	A great deal
Have others evaluated you, using the ICARE instrument?	6.5	51.4	15.9	21.5	2.8	1.9
Have you evaluated others, using the ICARE instrument?	5.6	31.8	24.3	28.0	6.5	3.7
Have you evaluated yourself, using the ICARE instrument?	5.6	15.9	12.1	36.4	19.6	10.3
Have you used the ICARE definition of teacher performance?	10.3	13.1	15.9	36.4	13.1	11.2
Have you utilized ICARE objective data collection practices for evaluation purposes?	7.5	32.7	14.0	29.0	13.1	3.7
Has the ICARE system been implemented in your program?	12.1	40.2	15.9	21.5	5.6	4.7
Have you used the ICARE interview process?	10.3	44.9	21.5	14.0	6.5	2.8
Have you used ICARE as a mechanism for improving instruction?	5.6	15.0	14.0	31.8	20.6	13.1

TABLE 6a RELATIONSHIP OF ICARE COMPONENTS WITH ADOPTION SCORE

ICARE Component	Percent Indicating Some Degree of Use	Level of Significance
Evaluated by others	42.1	.000
Evaluated others with ICARE	62.6	.000
Self-evaluation	78.5	.007
Use of ICARE definition	76.6	.000
Use of objective data collection	59.8	.000
Implementation of ICARE	47.7	.000
Use of ICARE interview	44.3	.000
Used ICARE to improve instruction	79.4	.000

CHI-square was used to calculate the level of significant relationship for each ICARE component as it was crossed with the overall adoption score. The adoption score was the sum of the adoption of each of the major ICARE practices: peer evaluation, ICARE interview, self-evaluation and counseling. (Questions from Section III of the survey instrument)

TABLE 6 indicates that the ICARE workshops have resulted in the use of the following ICARE practices:

1. self-evaluation
2. use of definition
3. use of instrument
4. improvement of instruction

The ICARE components used least were peer evaluation, objective data collection and interview process.

In further analyzing the responses, a crosstab was completed which dicotomized adoption scores into adopt-non-adopt categories for each of the eight ICARE components. As the level of significance in TABLE 6a indicates, there is high agreement between the adoption score and the extent of use of each individual component. This procedure provides a reliability check on the data.

TABLE 7 IMPACT OF ICARE ON RESPONDENT PROFESSIONAL ACTIVITIES

Activity Affected	Percent Reporting Positive Impact
Improved teaching	79.4
Improved student performance	61.7
Development of learning objectives	68.2
Improved instructional activities	72.0
Increased self-confidence	70.0
Increased awareness of educational methods	85.0
Improved evaluation of students	71.9
Improved interviewing practices	56.0
Improved evaluation by students	48.5

TABLE 7 indicates the impact of ICARE on several professional activities performed by respondents. The categories for this item on the survey were developed from free-responses collected in a survey conducted by the American Society of Allied Health Professions. Although the data indicate impact in all areas, the activities most affected are awareness of educational methods (85%) and improvement of teaching (79.4%).

The following are individual responses to the question: "Have there been any changes in your professional career as a result of the ICARE workshop? If so, what?"

- more aware of teaching methodologies
- made my job as an instructional specialist easier
- more faculty interest in better ways to teach
- I am more confident as a teacher
- knowing how is half the battle
- before this my teaching activities were designed more by intuition.
- ICARE has helped my teaching greatly

- my effectiveness in classroom and clinical instruction has improved
- would like to get more of my faculty in training institutes
- I have become more cognizant of objectives and their use
- before attending ICARE I was floundering in my decision to stay in teaching
- I have made several additions to our program based on ICARE performance criteria

These comments reflect the results summarized in TABLE 7.

TABLE 8 ADAPTATIONS OF ICARE TO OTHER TYPES OF EVALUATION

Type of Activity Adapted	Percent
Defining criteria before evaluating performance	21
Objective data collection	16
Utilization of an evaluation instrument	16
Using objective interview techniques	8
Evaluating performance	21

TABLE 8 provides the response summary indicating those areas where adaptation took place. It should be noted that a respondent could, and in many instances did, select more than one area of activity. Therefore, the percentages are based on the total response pool, indicating that a large majority of the adapters utilized several areas of the ICARE model for other types of evaluation practices.

Respondents were requested to provide comments as to the types of adaptations made under each of the categories in TABLE 8. The following are examples of these responses:

Defining criteria before evaluating performance

- defined clinical objectives for students
- adjusted employee evaluation forms
- modified ICARE for seminar evaluations
- applied to student evaluation

Objective data collection

- interview of applicants
- in both instruction and lab management
- using the principle in student evaluations
- used in setting up my program

Utilization of an evaluation instrument

- both as instruction and management tool
- for clinical teaching at bedside
- modified present forms, developed new ones

Using objective interview techniques

- have defined factors important in interview
- all interviews conducted with preset items
- all applicants asked same type of questions

Evaluating performance

- in both instruction and lab management
- clinical performance of students
- teacher evaluation
- self-evaluation

As a further index of impact, fifty-nine percent of the respondents reported disseminating information about ICARE.

TABLE 9 indicates the percentages of responses to facilitators and barriers to implementation of the ICARE concepts. The major facilitators were identified as 1) ICARE workshops and 2) faculty interest and support. Major barriers were identified as 1) lack of time and 2) using another evaluation system.

ICARE COMPONENTS / FACILITATORS	Being evaluated by others	Evaluating others	Self-evaluation	Use of ICARE definition	Objective data collection	ICARE implementation	ICARE interview	ICARE as mechanism for improving instruction
ICARE workshop	22	25	26	22	20	12	17	25
ICARE consultants	7	4	6	5	7	5	3	6
Administrative support	4	8	8	5	7	8	2	7
Faculty interest and support	15	14	6	8	6	11	3	2
External mandate	6	4	2	1	2	2	3	2
Relevance of ICARE materials	8	18	16	11	13	9	7	17
Adequate time allotted	4	8	2	3	4	3	3	4
Adequate financial support	2	2	2	2	2	1	1	1
BARRIERS								
Lack of time	27	26	18	9	16	21	17	15
Lack of ICARE information	8	1	2	3	3	4	1	2
Concept not appealing	4	4	2	2	3	4	2	2
Using another evaluation system	12	10	6	6	8	11	13	8

The list of facilitators and barriers tested were derived from previous participant comments and verbal communications.

TABLE 10 indicates respondents' perceptions of needed ICARE services and materials. The areas where services and materials are most requested are 1) individualization of instruction, 2) improvement of instructional competence, 3) learning difficulties and 4) evaluation of student progress.

TABLE 10 NEEDED ICARE SERVICES OR MATERIALS

Educational Activities Represented by ICARE Scales	Percent of Respondents Indicating a Need For Materials
Development of learning objectives	16
Selection and use of instructional materials	12
Educational climate for learning	12
Variety or instructional activities	17
Preparation for class session	12
Instructional methods	14
Individualization of instruction	26
Opportunity for student participation	14
Instructor reaction to student response	14
Learning difficulties	23
Evaluation of student progress	23
Vocational advisement	8
Use of allied resources	7
Ethics of health care field	17
Development of human skills	13
Staff relations	14
Instructor self-evaluation	25
Improvement of instructional competence	25
Growth in health care specialty	12
Health care delivery system information	11

In responding to a question dealing with the need for additional workshops, 28% of respondents indicated a need for workshops geared to ICARE implementation; 24% indicated a need for additional basic ICARE workshops.

Other Findings

The following findings are presented in summary from the data analysis:

Descriptive information:

Seventy-eight percent of the respondents attended the ICARE workshop between one and three years ago. Seventy-five percent attended for purposes of their own professional development; seventy-three percent asked to attend.

Important non-significant relationships:

1. In the overall adoption of ICARE, no significant differences were obtained for the various primary responsibilities of the participants, for the number of years with the employing agency, nor for the type of employing agency.

2. With regard to the workshop format, there was no significant difference in overall adoption by number of participants nor by number of hours or time attended.

Important significant relationships:

1. Participants with a greater number of faculty involved in the ICARE workshop had a higher degree of overall adoption.

2. Participants requested to represent their agency had significantly higher adoption scores than others, and greater use of the ICARE interview.

3. Respondents who listed teaching staff evaluation as a job responsibility had significantly higher use of ICARE for peer observation.

4. Respondents who listed teaching staff evaluation as a job responsibility had significantly greater use of ICARE as a counseling mechanism.

5. Those who adopted the ICARE concepts tended to adapt the tools to meet their individual needs.

SUMMARY

From the data presented in Table 9 it is possible to conclude that the ICARE workshop played a major role in the facilitation or adoption of the ICARE components. The role of the ICARE consultant had a positive effect upon adoption of some concepts, namely being evaluated by others.

Administrative support and faculty interest were major factors in adoption, as was the relevance of the ICARE materials. With respect to the overall adoption of ICARE, there were no significant differences among the various listed primary responsibilities or job responsibilities with one notable exception: those who listed teaching staff evaluation as a job responsibility had significantly greater use of that component of the ICARE process.

With respect to overall use of the ICARE concepts and practices, using ICARE to improve instruction, self-evaluation, and use of the ICARE definition were the most frequently cited. As for the impact of ICARE upon the respondents' professional activities, all but one of the teaching activities cited in Table 7 were reported to have been improved by more than 56% of the respondents. No negative impact was reported in any area.

Twenty-nine percent of the respondents reported various types of adaptation of the ICARE components and process. As described in Table 8, defining evaluation criteria before evaluating performance, and other types of performance evaluation were cited as adaptations by twenty-one percent of the respondents.

The major barrier to adoption of ICARE, outside of the use of another system, seemed to be lack of time. A major facilitator to ICARE implementation was ICARE workshop and faculty interest and support. Administrative support was also seen as a facilitator in many of the ICARE practices.

With regard to differences between early and late respondents, the lack of a significant difference in overall adoption between these two groups may imply that the adoption data is representative of the population. Where significant differences were noted between the two groups (see Appendix G), these dealt principally with a more frequent identification of facilitators by the early respondent group. Thus, responses by the second group might be generalized to the non-respondents in that there were fewer facilitators identified by these individuals. In the case of the significant barriers, two were identified (specifically, lack of administrative support as an inhibitor to the use of the ICARE definition and lack of peer support for objective data collection practices).

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

With respect to the data presented in light of the research questions, the following conclusions are made:

1. ICARE is applicable and utilized across health professions and across a variety of agencies and job responsibilities. It is important to note, however, that while there were no differences among participants in overall adoption, those individuals for whom teaching evaluation is a responsibility have a greater degree of utilization of that component.

2. In view of the fact that the most frequently cited components (self-evaluation, use of ICARE to improve, and use of the ICARE definition) involve individual practice, it seems reasonable to conclude that ICARE may have personal impact upon teacher behavior regardless of the degree of programmatic implementation. This conclusion is further supported by the positive impact upon individual teaching responsibilities as reported in Table 7.

3. The major adaptations of the ICARE conceptual framework have been the development of performance criteria for other types of evaluation, such as student evaluation in classroom and clinical settings. Performance evaluation in other areas, such as employee evaluation and applicant evaluation also were cited, leading to the conclusion that ICARE as a conceptual process is generalizable to other evaluation situations.

4. Faculty interest and support, and the ICARE workshop were facilitators. Since there was a significant correlation between adoption scores and number of faculty involved in ICARE workshops, it would appear that programmatic implementation is increased by faculty involvement in ICARE. Administration support also was a major facilitator. It would seem reasonable to conclude, therefore, that programmatic implementation may be dependent upon the above-mentioned facilitators.

5. The major barrier to adoption was lack of time.

6. The impact of ICARE upon the educational practices of health educators falls within two primary categories. First, in regard to individual teacher behavior it was shown that ICARE had a positive effect upon a variety of educational activities such as development of objectives and improved student evaluation procedures. It produced increased awareness of appropriate instructional methods and teaching strategies. Respondents reported increased self-confidence in dealing with the teaching process. Secondly, with regard to utilization of the ICARE process, a significant degree of utilization was reported for each of the ICARE components. As shown in Table 9, the impact of the ICARE workshop was significant in facilitating utilization of the various components. In conclusion, the single most important facilitator was the ICARE workshop.

Recommendations

The survey was undertaken to assess and describe the utilization of ICARE concepts and practices in light of their impact upon the behavior of the health educators who attended workshops. From the analysis of the data and the survey findings the following recommendations are given:

1. The concept of faculty development through ICARE workshop experiences should receive continued support.

2. In as much as there seems to be two levels of ICARE activity, personal and programmatic, future workshops should be geared to these levels. Materials and services indicated in Table 10 should be developed and provided.

3. Individual faculty improvement workshops which expand the ICARE concepts of self-evaluation and performance improvement should be adjunctive to the basic ICARE workshops, and should provide specific skill development in areas where a need for improvement has been identified via the ICARE process.

4. Adaptations of the ICARE approach should be facilitated by workshops dealing with the conceptual framework of performance evaluation and the development of other systems based on this approach.

5. An implementation manual should be developed and workshops presented dealing with the specifics of ICARE implementation.

6. In view of the data obtained by this survey, guidelines and recommendations for institutional characteristics necessary to ICARE implementation should be developed.

7. Dissemination of ICARE activities should continue in order to provide a body of literature for the field. In this regard, the ICARE process should remain standard.

8. A consultant and participant procedural manual should be developed to enhance common practices.

9. Research should consider the significance of ICARE as a teacher training intervention.

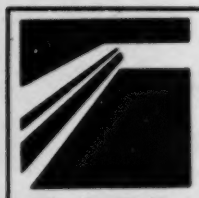
10. Research should consider the validity of ICARE as a mechanism for improving the instructional practices of health educators.

11. In order to facilitate communication, research and further development of ICARE, a national invitational conference on ICARE utilization and implementation should be held.

APPENDICES

APPENDIX A

ICARE Articles (reprinted with permission)



Chalk Talk

Evaluation: The ICARE Approach

by Ricki Ann Bronstein, M.S., MT(ASCP)

My purpose in this paper is to describe the components of ICARE, an objective system for the evaluation of teaching skills, and to suggest ways in which these components may be applied in other types of evaluation.

Introduction

Formal and informal evaluation processes are used in some form by nearly every organization. Employees are evaluated by supervisors, supervisors are evaluated by administrators, teachers and students evaluate each other. The information generated by these evaluations may be used for a variety of purposes, the most important of which is to promote improved performance on the part of the individual being evaluated.

Performance improvement should be the implicit purpose of any evaluation. However, evaluation, by its very nature, often leads to feelings of anger and frustration rather than the establishment of new goals. The problems associated with the evaluation of one individual by another stem from the aversion one feels to being judged, as well as the discomfort many people experience when called upon to judge.

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Many of the difficulties inherent in the evaluation process arise from the subjectivity of some evaluation systems. An employee discounts a poor evaluation because "the supervisor has always had it in for me." A teacher repeatedly ignores negative student feedback because "students always have to have something to complain about." Statements like these point to the need for standard criteria against which to reference the judgments required in the evaluation process.

Standard performance criteria are essential if evaluation is to be based on desired behavioral outcomes. Specification of performance criteria requires that the job be analyzed and the optimal levels of performance defined. These defined outcomes are the goals toward which an individual should strive.

Components of the ICARE System

ICARE (Instrument for Comprehensive and Relevant Education) is an objective system for the evaluation of teaching skills in the health professions. The details of the process as it is applied in health professions education have been presented earlier.[1]

The ICARE approach to the evaluation process requires the following steps:

1. Definition of desired performance.
2. Condensation of defined performance into a measurement instrument.
3. Objective collection of performance data.
4. Evaluation of data using the measurement instrument.
5. Provision for performance improvement via counseling.

Step 1, the definition of performance competencies, is a necessary activity in any evaluation system. The approach used in the ICARE workshops is to provide the participants with over 100 statements of performance competencies that may be applied to health care instructors; such as, "Plans instructional activities to motivate students", "Creates a climate in which students are encouraged to respond freely, and "Demonstrates skill in selecting and utilizing instructional activities appropriate to the learning situation."

By analyzing and discussing these performance competencies, the participants gain an insight into the mechanism by which optimal performance can be defined. Once the desired performance behaviors have been defined, they are condensed into the ICARE measurement instrument (step 2).

The ICARE instrument consists of a series of 20 performance

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rating scales, each assessing 5 levels of behavior. An example is:

ICARE Evaluation Instrument

Scale 13: Use of Allied Resources. The Instructor:

A. Uses varied human and material allied resources from inside and outside health care agencies to enhance learning on a systematic basis.
B. Uses human and material resources periodically from inside and outside health care agencies to enhance learning.
C. Uses some allied resources available from health care agencies to enhance learning.
D. Depends upon his own materials; seldom uses any available allied resources.
E. Uses no allied resources from health care agencies.

In the workshop, the participants learn how to use these scales for evaluating instructional activities. The initial evaluations are made on filmed lectures so that the participants can become familiar with the instrument.

Step 3. Objectivity in evaluation is essential if the process is to validly relate to the defined performance. One of the primary principles of the ICARE evaluation system is the objective collection of data to be assessed via the instrument rating scales. Care must be taken that the data collected by the observer be free of individual interpretation. That is, the information at this step is collected and recorded without interpretation.

Exercises related to building participant skills at objective data collection take a variety of forms during the ICARE workshop. Still photographs, stop-action films and slide-tapes are used to encourage participants to examine their own

Fig. 1.

observation habits and then to guide them, if necessary, into more objective patterns of observation.

For example, what can you say about the man in Figure 1? Now look at Figure 2 on p. 50. Was your assumption correct?

This exercise illustrates that assumptions are not necessarily valid in the collection of objective data. Subjectivity and value judgments during data collection impair the validity of the evaluation process by introducing observer bias.

Step 4 of the evaluation process uses the evaluation instrument to assess the data which has been collected. Workshop participants analyze and then use the ICARE instrument to evaluate the simulated teaching exercises. First, data are objectively collected by each participant during film-training exercises. These data are then analyzed by participants and evaluated using the ICARE instrument. Thus, participants not only practice objective evaluation techniques but also acquire skill in the use of the ICARE instrument and in defining performance standards.

The ICARE system also uses the interview as part of Steps 3 and 4. Participants practice developing and structuring interview questions designed to elicit objective data related to instructional and professional activities. These data also are applied to the ICARE instrument and add another dimension to the collection of information through observation.

When data collection and analysis are completed, the scale ratings may be compiled into a profile. The profile represents a visual illustration of the analyzed data. The final step, Step 5, is the counseling process which provides goals for performance im-

Fig. 2.

provement. It is at this step that the profile becomes a useful tool in providing a basis for discussion. An important component of counseling is the input provided by the individual who is being counseled, as well as the evaluator.

Implementation/Adaptation

The ICARE system for evaluation of teaching competence may be adapted to meet the needs of individuals, programs or institutions. The fact that subjective value judgements have been minimized makes this evaluation process useful for both peer observation as well as self-evaluation of teaching performance. As Deever and Adachi point out, "Teachers are receptive to an evaluation

instrument postulated on the premise that teaching competence can be defined—with improvement of instruction as the ultimate goal."[2]

The fact that teaching competence has been defined for the purpose of evaluation has implications for other evaluation systems. The steps in evaluation detailed above can be applied to a variety of situations. For example, student performance, once defined, may be objectively observed and evaluated. Employee performance appraisals may be addressed by this method which provides for individuals to work toward specific performance goals.

The key to the adaptation of ICARE is the development of optimal performance standards for the job in question. As Kinney states, "A criterion is required to establish what will constitute success, and what (behavior) will be evidence of success."[3] It is this most important developmental step (Step 1), the setting of the standard or criterion of performance, which is overlooked in most evaluation systems.

The measurement instrument (usually a series of rating scales) must be related to the definition of optimal behavior. The highest scale ratings should closely reflect the desired criterion performance. Data objectively collected is then evaluated and performance improvement is provided via the counseling process.

The Purpose of ICARE

ICARE was developed to provide an objective assessment of the teaching competence of health professions educators. Adaptations of this system have been used for evaluation of applicants to various educational programs, assessment of student performance, and evaluation of academic institutions. Adaptations share the common purpose of the original version: to generate valid information and an accurate assessment of what *is*, so that appropriate action may be taken to formulate realistic goals and to plan concrete steps for performance improvement.

References

1. Bronstein, R.A., 1978. ICARE: A measure of teacher effectiveness. Lab. Med., April.
2. Deever, R.M. and M. Adachi, 1970. Acceptable teacher evaluation—Criterion referenced measurement. June.
3. Kinney, L.B., 1970. "The Criterion in Teacher Evaluation," cited by R. Deever and M. Adachi, "Acceptable Teacher Evaluation—Criterion Referenced Measurement" Arizona State University (unpublished manuscript), June.

■

Chalk Talk

ICARE: A Measure of Teacher Effectiveness

by Ricki Ann Bronstein, MS, MT(ASCP)

For the most part, educators within the health care professions were trained primarily within their respective specialties as practitioners. Many have other service-related responsibilities which may have priority over educational activities. Nevertheless, instructors who are also competent teachers are needed in the health professions. In order for individual instructors to assess their own teaching skills, a method of teacher evaluation has been developed to meet the specific needs of the health care practitioner.

Need For Teacher Evaluation

Teacher preparation for health professions educators is spotty. Many have had little formal training in educational principles or methodology. Likewise, with the exception of student evaluations of teacher performance, there has been no mechanism by which the health professional could assess his or her teaching competency. Lack of the means for such assessment impedes the process of individual improvement. (It is difficult to know where you are going unless you first know where you are).

In 1972 a system of evaluation was developed by Smith and Deever[1] to measure teacher effectiveness within the health professions. This system, called ICARE (Instrument for a Comprehensive and Relevant Education), was designed to provide for individual teacher improvement by assisting the teacher to assess his or her own level of performance and to plan for improvement in specific areas.

What Is ICARE?

The ICARE evaluation system is presented as a faculty development workshop. The system consists of two parts: (1) the ICARE materials and (2) the workshop participants who become trained in objective evaluation of teaching activities. It is important to note that teaching *activities* are evaluated, *not* individual teacher characteristics. This assessment of the various activities involved in teaching is the means by which performance improvement is provided. The types of activities which can be evaluated include:

1. Development of learning objectives.
2. Selection and use of instructional materials.
3. Use of instructional methods.

In addition to assessment of classroom activities, ICARE provides performance criteria for evaluation of the other areas of involvement of the health care instructor. These areas include improvement of performance as a practitioner, involvement with professional organizations, and performance on the health care team. Thus, the special needs of the health practitioner who teaches are addressed in this system.

Objective Evaluation

In order to provide for teacher improvement, performance standards must be specified. As Kinney points out, "Before a function can be measured it must first be defined."[2] Therefore, the definition of teacher competence forms the basis of the ICARE evaluation system.

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(The Instructor)

1.3 Demonstrates proficiency in instructional procedures.
- 1.31 Demonstrates skill in selecting and using instructional activities.
- 1.32 Uses methods of instruction relevant to the learning goals.
- 1.33 Conducts effective classroom discussion.

Fig. 1.

The definition consists of over one hundred performance statements that specify optimum levels of activity which might be expected of teachers in health care programs. Figure 1 illustrates examples of such statements.[1] Because these activities are described as specific behaviors, the definition becomes the criterion of performance against which teaching activities are compared.

Measurement of performance compared with a standard is *criterion-referenced measurement*. As stated by Popham and Husek[3], "It is because the individual is compared with some established criterion, rather than with other individuals, that these measures are described as criterion referenced."

The main purpose for the evaluation of teaching activities should be for the improvement of performance. Unless specific criteria are provided against which such activities are measured, the teacher receives little specific information regarding which areas of instruction to improve or how to improve them.

The performance criteria set forth in the definition of teacher competence is, in part, responsible for reducing the inherent subjectivity which often besets attempts at teacher evaluation. Figure 2 shows examples of several rating scales which have been used in a variety of evaluation systems. While such scales are often useful in providing numerical indices and measures of central tendency, they also are beset by subjective interpretation because no performance criteria are provided against which to assess the scale levels.

The subjectivity of noncriterion-referenced systems is reflected in the "halo" effect. That is, a numerical rating on the first scale has a tendency to

	Poor					Excellent
Relevance of lecture	0	1	2	3	4	5
Value of lecture notes	0	1	2	3	4	5
Quality of the lecture	0	1	2	3	4	5

This lecture was:

confusing_____ easy to understand

irrelevant _____ relevant

Fig. 2.

Develops learning objectives which are relevant to job requirements.
Demonstrates skill in the use of instructional materials.
Establishes rapport with the class.

Fig. 3.

influence ratings on subsequent scales unless performance criteria are provided for each scale.

Subjectivity is also increased by nonbehavioral terms such as "poor" and "excellent." Since individual definitions of these terms vary significantly from person to person, their use in a performance-rating scale is of little value to the teacher who is trying to identify specific areas in need of improvement. Thus the need for an objective evaluation scheme.

Evaluation in Behavioral Terms

The importance of assessment of teaching skills in behavioral terms lies in the descriptive value of such statements. Rather than ratings of "poor" and "excellent", the ICARE evaluation instrument provides the instructor with statements of behavior which are referenced to observed teaching activities. Examples of such behavioral statements are shown in Figure 3.

The ICARE evaluation instrument consists of 20 rating scales, each comprised of five performance behaviors relating to a single activity and each stated in behavioral terms (Fig. 4). Teaching activities are observed in film training during the ICARE workshop. The activities observed are measured by each participant via the ICARE rating scales and compared with the performance standard specified in the definition of optimum teaching performance.

It may be important to note that the ICARE system of evaluation was developed by health care instructors for use in health care educational settings. Because of its development by practitioners of a

Scale 8. Instructional Methods

The instructor:
- A. Uses one instructional method for all purposes.
- B. Uses one instructional method predominantly; relates methods to learning goals occasionally.
- C. Varies methods to some degree; the choices show some relevance of instructional methods to learning goals.
- D. Uses some variation in instructional methods which are generally related to the learning goals.
- E. Demonstrates a variety of instructional methods which are generally relevant to the learning goals.

Observers should look for instructional methods such as lecture, lecture discussions, questioning strategy, deductive, inductive and discovery.

Fig. 4.

profession for use within that profession, this system may be said to possess social validity[4] for health care instructors.

How to Assess Performance

Most teachers possess both strengths and weaknesses in educational performance. Assessment of one's activities via the ICARE instrument allows the individual to identify both the strong areas and those that may need improvement.

This method, which involves separate analysis of each activity, decreases the likelihood that the halo effect will either raise or lower ratings on any scale. Therefore, it is possible for activities to be rated high in some areas and much lower in others. Once this information is made available, an individual may begin to plan for improvement in specific areas or at least to identify those areas in which some assistance or skill development might be needed.

It should be noted at this point that a major purpose of the ICARE workshop is to provide participants with the necessary training to perform this assessment for themselves. The focus of the workshop experience is to develop participant skills in the area of objectivity, identification and observation of teaching activities, and the appropriate use of the ICARE evaluation system. Because a key ingredient of the ICARE process is the trained observer, ICARE materials are available only upon completion of the basic workshop. Thus efforts are made to quality control and preserve the integrity of the process.

The Key is Objectivity

Teacher evaluation has had many negative connotations. Subjectivity and value-laden judgments are often responsible for feelings of frustration and inadequacy on the part of individuals being evaluated. In an effort to introduce specificity and goal orientation into the evaluation process, ICARE provides an objective means by which activities are compared against an agreed-upon standard. By this method individuals are not compared with each other in a traditional norm-referenced fashion. Rather, the instructor is provided with the skills necessary to perform a self-evaluation and to improve in those areas in which he or she has identified a need for skill development.

A further discussion of ICARE will be presented in a future issue of LABORATORY MEDICINE.

References

1. Smith, W.E. and R. Deever. 1972. The Role of the Instructor in Health Care, Instrument for a Comprehensive and Relevant Education. Arizona (Div. Health Manpower, NIH Contract #72-4355).
2. Kinney, L.B., 1970. The Criterion in Teacher Evaluation. Cited by R. Merwin Deever and Mitsuo Adachi, Acceptable Teacher Evaluation—Criterion-Referenced Measurement, Unpublished manuscript, Arizona State University, June.
3. Popham, W. and T.R. Husek, 1970. Implications of Criterion-Referenced Measurement, Journal of Educational Measurement, Spring, 1969. Cited by R. Merwin Deever and Mitsuo Adachi, Acceptable Teacher Evaluation—Criterion-Referenced Measurement, Unpublished manuscript, Arizona State University, June.
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APPENDIX B

Consultant Letter

COLORADO ASSOCIATION FOR CONTINUING MEDICAL LABORATORY EDUCATION, INC.
MERCY SOUTH • SUITE 626 • 1601 MILWAUKEE STREET • DENVER, COLORADO 80206 • (303) 321-1734

ICARE Evaluation Study

November 11, 1977

Dear ICARE Consultant:

As you know, activity with ICARE has been diverse and varied since 1972. As a result of information obtained by Dora Johnson in connection with the National ICARE Refinement Conference in April, 1977, it has become obvious that ICARE has found its way into many facets of health professions education.

In an effort to assess the current utilization of ICARE and its impact upon the education of health care professionals, an evaluation study has been undertaken by the Colorado Association for Continuing Medical Laboratory Education, Inc. (CACMLE) and is being supported by DHEW Region VIII, Health Manpower Branch. It is my belief that the results of this impact study may have implications for the future support of ICARE. Therefore, we are asking for your assistance in making this evaluation as complete and representative as possible.

> In order to accurately assess the national scope of ICARE activities, we need to have the dates, locations and any participant information (e.g. names and addresses) you may have. The participant data you send is of extreme importance since a sample of the participants will be utilized to assess their level of involvement with ICARE since attending your workshop. This evaluation will in no way assess your personal performance with ICARE. Let me stress that any participant information you have will be useful to the project. We will appreciate your returning the enclosed form even though you may have no information for us.

Your quick response (by December 15, if possible) will be essential to the design of the sample.

Upon completion of the ICARE evaluation, a summary and analysis of the information will be available. If you would like to receive a copy, please indicate this when you return the enclosed envelope and materials.

Thank you for your continued support of ICARE.

Sincerely,

Ricki Bronstein

Ricki Bronstein, Project Director
ICARE Evaluation Study

APPENDIX C

Initial Cover Letter

ICARE Evaluation Study

Dear ICARE Participant:

As you know, activity with ICARE has been diverse and varied since 1972. As a result of information obtained in connection with the National ICARE Refinement Conference held in Denver in April, 1977, it has become obvious that ICARE has found its way into many facets of health professions education.

In an effort to assess the current utilization of ICARE and its impact upon the education of health professionals, an evaluation study has been undertaken by the Colorado Association for Continuing Medical Laboratory Education, Inc. (CACMLE) and is being supported by the Department of Health, Education and Welfare, Region VIII, Health Manpower Branch.

It is my belief that the results of this impact study may have implications for the future support of ICARE. Therefore, we are asking your assistance in making this evaluation as complete and representative as possible.

Your quick response (by May 8, if at all possible) will be important in the evaluation of the ICARE system.

Thank you for your continued interest in ICARE.

Sincerely,

Ricki Bronstein

Ricki Ann Bronstein
Project Director

APPENDIX D

Follow-Up Letter

COLORADO ASSOCIATION FOR CONTINUING MEDICAL LABORATORY EDUCATION, INC.
MERCY SOUTH • SUITE 626 • 1601 MILWAUKEE STREET • DENVER, COLORADO 80206 • (303) 321-1734

ICARE Evaluation Study

May 8, 1978

Dear ICARE Participant:

Recently you received a copy of the ICARE Evaluation Survey. We are in hopes that you might find the time to complete the survey and are enclosing a second copy for your convenience.

It is our belief that the future support of ICARE will be largely related to the results of this study; thus your accurate and complete information is crucial. Your name was chosen as part of a random sampling of all ICARE participants in the country. Since data from the sample is being used to make generalizations about the impact of ICARE on a national basis, your contribution is particularly important. We greatly appreciate your time.

Thank you,

Ricki Bronstein

Ricki Ann Bronstein
Project Director

APPENDIX E

Final Follow-Up Letter

COLORADO ASSOCIATION FOR CONTINUING MEDICAL LABORATORY EDUCATION, INC.
MERCY SOUTH • SUITE 626 • 1601 MILWAUKEE STREET • DENVER, COLORADO 80206 • (303) 321-1734

ICARE Evaluation Study

May 22, 1978

Dear Colleague:

The subject of this letter is the ICARE Evaluation Survey. Your name was selected as part of a random sampling of all ICARE participants in the country.

Because of the statistical limitations of such a sample, it is extremely important for us to have your input. We are in hopes that, on the basis of the data we receive from the sample members, the delivery and development of ICARE may be made more responsive to the needs of health educators.

Please help us by taking above fifteen minutes to complete the ICARE survey you have received.

Thank you,

Ricki Bronstein

Ricki Ann Bronstein
Project Director

RAB:ma

APPENDIX F
SURVEY INSTRUMENT

DESCRIPTIVE INFORMATION

I

Name _____

Position _____

Employer _____

Occupational Field _____
(e.g., nurse, med-tech., etc.)

Check your primary responsibility : (check only one)

_____ Teaching Classroom
_____ Teaching Clinical
_____ Program Administrator
_____ Practitioner with teaching responsibilities
_____ Other _____ (specify)
_____
_____

Number of years with present employer

_____ 0 - 2 Years
_____ 3 - 5 Years
_____ 6 - 8 Years
_____ 9 - 11 Years
_____ 12 Years or More

Type of Employing Agency (check only one):

_____ Vocational/Technical School
_____ Community College
_____ Four Year College/University
_____ University Medical Center
_____ Hospital
_____ Private School
_____ Other _____ (specify)
_____
_____

Which of the following job related activities do you perform? (check all that apply)

_____ Course Development
_____ Program Development
_____ Clinical Practice
_____ Teaching (classroom or clinical)
_____ Program Evaluation
_____ Teaching Staff Evaluation
_____ Hiring of Teaching Staff
_____ Administration

List the number of Full and Part-Time Teaching Staff in your Program.

_____ Full-Time Teaching Staff
_____ Part-Time Teaching Staff

How many of these individuals have participated in ICARE? _____

II

Approximately how long ago did you attend the ICARE workshop?

___ Less than one year ago

___ One year but less than two years ago

___ Two years but less than three years ago

___ More than three years ago

Check the approximate number of total hours in your workshop? (check only one)

___ 1 - 8

___ 9 - 17

___ 18 - 26

___ 27 - 35

___ 36 - 44

___ 45 - Over

Which of the below best describes the workshop you attended?

___ Two days

___ Three days

___ Four days

___ One and one-half days, time lapse, One and one-half days

___ Semester/Quarter Course

___ Other _____ (specify)

Check the reasons for participating in the ICARE workshop (check all that apply):

___ Required to attend

___ Requested to represent my agency

___ To obtain a credit (Academic or CEU)

___ My own professional development

Did you identify a need for a faculty development/ evaluation system? (check one)

___ Before hearing about ICARE

___ When I heard about ICARE but before attending the workshop

___ While attending the workshop

___ After attending the workshop

___ I do not have a need

Did you become interested in an evaluation system such as ICARE: (check one)

___ Before hearing about ICARE

___ When I heard about ICARE but before attending the workshop

___ While attending the workshop

___ After attending the workshop

___ I am not interested

To what extent did you want to attend the workshop?

Did not want to attend		It did not make a difference to me		I asked to attend
1	2	3	4	5

Were you given release time to attend the workshop?

___ Yes ___ No

Approximately how many individuals participated in the workshop with you? Number _____

How many workshop leaders (consultants) conducted the workshop? Number _____

By what means did you become aware of ICARE? _____

III - U S E

Place a check by each factor that facilitated the adoption of each ICARE concept or practice, also check each barrier that inhibited you from full implementation of each concept or practice.

WORKSHOP CONCEPT OR PRACTICE	RATING SCALE					FACILITATORS								BARRIERS										
As a result of the ICARE Workshop to what extent:	Not at All	Little	Some	Much	A Great Deal	Workshop	Consultants	Administrative Support	Adequate Time Alloted	Faculty Interest and Support	External Mandate	Adequate Financial Support	Relevance of Materials	None - N/A	Lack of Time	Lack of Money	Lack of Adm. Support	Lack of Confidence	Lack of ICARE Consultants	Lack of ICARE Information	Materials Lack Relevance	Using Another Evaluation System	Concept Not Appealing	Lack of Peer Support	None N/A
Have others evaluated you, using the ICARE Instrument?																									
Have you evaluated others, using the ICARE Instrument?																									
Have you evaluated yourself, using the ICARE Instrument?																									
Have you used the ICARE definition of teacher performance.																									
Have you utilized ICARE objective data collection practices for evaluation purposes?																									
Has the ICARE System been implemented in your program?																									
Have you used the ICARE Interview process?																									
Have you used ICARE as a Mechanism for improving Instruction?																									

To what extent were the following activities affected by the ICARE Program?

	N/A	Not at All		Some	A Great Deal	
Changes in Job Responsibilities	0	1	2	3	4	5
Improved teaching	0	1	2	3	4	5
Improved student performance	0	1	2	3	4	5
Development of learning objectives for my classes	0	1	2	3	4	5
Improved instructional activities for my classes	0	1	2	3	4	5
Increased activities with professional groups.	0	1	2	3	4	5
Increased self-confidence	0	1	2	3	4	5
Increased awareness of education methods	0	1	2	3	4	5
Improved evaluation of students	0	1	2	3	4	5
Improved interviewing practices	0	1	2	3	4	5

III Continued

To what extent have evaluations of yourself changed since attending the ICARE Workshop?

	Negative Change		No Change		Positive Change
Peer evaluation of your teaching performance	1	2	3	4	5
Student evaluation of your teaching performance	1	2	3	4	5

Briefly describe the process used and consideration made in deciding:

(1) Which areas of ICARE to try out (pilot testing)? _____

_____

(2) which areas to reject without tryout? _____

_____

(3) and, which areas to adopt without tryout? _____

_____

Which of the following areas did you consider for pilot testing? (check all that apply)

____ Peer Observation
____ ICARE Interview
____ Self-Evaluation
____ Counseling for Improvement of Instruction
____ Other _____

_____

Which of the following areas have you tried out or tested? (check all that apply)

____ Peer Observation
____ ICARE Interview
____ Self-Evaluation
____ Counseling for Improvement of Instruction
____ Other _____

_____

Which of the following areas have you adopted? (check all that apply)

____ Peer Observation
____ ICARE Interview
____ Self-Evaluation
____ Counseling for Improvement of Instruction
____ Other _____ (specify)

_____

For each area adopted indicate what influenced you to accept the practice.

_____
_____
_____
_____
_____
_____

To what extent did you find it necessary to modify the ICARE material before adoption?

Not at All		Some		Extensively
1	2	3	4	5

What modifications were made, if any? _____

_____
_____
_____
_____
_____
_____
_____
_____
_____

III Continued

Have you applied the ICARE concepts to other areas of instruction and/or evaluations? ___ Yes ___ No

If yes, check the concepts that you have applied in other areas. (Check all that apply and give description of your adaptations in the space provided)

____ Defining criteria before evaluating performance _____
(comments)

____ Objective data collection _____
(comments)

____ Utilization of an evaluation instrument _____
(comments)

____ Using objective interviewing techniques _____
(comments)

____ Evaluating performance _____
(comments)

Have there been any changes in your professional career as a result of the ICARE Workshop?

If yes, what? _____

IV

DISSEMINATION

Did you disseminate the ICARE materials or concepts? _____ Yes _____ No

If yes, indicate the extent and type of your dissemination activities, (check all that apply):

Type of Activity	Number of People Receiving Information	Number of Times Used
_____ Informal Discussion	_____	_____
_____ Shared ICARE Material	_____	_____
_____ Written Report	_____	_____
_____ Formal Presentation	_____	_____
_____ Present ICARE Workshop	_____	_____

Check the items that indicate the types of services you need in order to implement ICARE: (check all that apply)

_____ Workshops geared to: (check those needed)

a) _____ ICARE Implementation
b) _____ ICARE Consultation Skills
c) _____ Basic ICARE Workshop

_____ ICARE Recruiting/Information/Promotion/Materials

_____ Other _____
(specify)

Check any scale where additional materials are needed on these subjects:

Scales	Scale Description
_____ 1	Development of Learning Objectives
_____ 2	Selection and Use of Instructional Materials
_____ 3	Educational Climate for Learning
_____ 4	Variety of Instructional Activities
_____ 5	Preparation for Class Session
_____ 6	Instructional Methods
_____ 7	Individualization of Instruction
_____ 8	Opportunity for Student Participation
_____ 9	Instructor Reaction to Sudent Response
_____ 10	Learning Difficulties
_____ 11	Evaluation of Student Progress
_____ 12	Vocational Advisement
_____ 13	Use of Allied Resources
_____ 14	Ethics of Health Care Field
_____ 15	Development of Human Skills
_____ 16	Staff Relations
_____ 17	Instructor Self-Evaluation
_____ 18	Improvement of Instructional Competence
_____ 19	Growth in Health-Care Specialty
_____ 20	Health-Care Delivery System Information

Thank You.

APPENDIX G

Late Respondents Analysis

TABLE G SUMMARY OF T-TESTS COMPARING EARLY VS. LATE RESPONDENTS

VARIABLE SUMMARY	LEVEL OF SIGNIFICANCE
Adequate time allowed to evaluate others	.02
Relevance of ICARE materials facilitated evaluation	.05
ICARE workshop facilitated use oi ICARE definition	.01
Faculty interest and support facilitated use of ICARE definition	.02
ICARE consultants facilitated objective data collection practices	.02
Relevance of ICARE materials facilitated objective data collection practices	.02
ICARE workshop facilitated implementation	.01
Using another system a barrier to implementation	.02
Lack of administrative support inhibited use of ICARE definition	.04
Lack of peer support inhibited objective data collection practices	.02

Significant findings are reported. In all cases, the mean for the early respondents was greater than the mean for the late respondent group.

T-tests were performed on all facilitators and barriers as well as on the overall adoption score and use of the individual ICARE components. The above summary table lists only those where a significant difference was found to exist between the mean of the early respondent group and that of the late respondent group.